

## REMARKS

The Examiner rejected claims 1, 3-5, 9, 14-16, 19 and 23 under 35 U.S.C. §102(b) as being anticipated by Hollander et al. Specifically the Examiner stated that Hollander discloses a digital multimeter 1 with non-contact temperature measurement capability as claimed by Applicant in Claims 1, 3-5, 9, 14-16, 19 and 23: comprising a multimeter 1 contained in a housing and having outputs relating to measured electrical parameters (col. 5, lines 27-31); an (digital) output display 2 (col. 2, lines 12-13) contained in the housing, for displaying results to a user; a non-contact optically-based (infrared) temperature sensing device (col. 5, lines 22-25) coupled to (Hollander discloses the device is 'built-in' so it is both 'coupled to' the housing as claimed by Applicant in Claim 1 and 'within' the housing as claimed by the Applicant in claim 19), having an output related to sensed temperature; and circuitry (e.g. col. 12, lines 58-65) contained in the housing for processing both the multimeter outputs and the temperature sensing device output, and transmitting (col. 5, lines 1) the processed output to the output display as claimed by Applicant in claims 1, 3 and 19.

In response, the Applicant has amended claims 1 and 19 to clarify that the claimed multimeter comprises a built-in temperature sensor with circuitry contained in the housing for processing both the multimeter outputs and the temperature sensing device output, and transmitting the processed output to the output display.

The Examiner has rejected claim 2 under 35 U.S.C. §103(a) as being unpatentable over Hollander in view of Michalski et al. The Examiner states that Hollander does not disclose a non-contact temperature sensing device that has a fixed emissivity as claimed in claim 2. The Examiner refers to Michalski et al. as defining the term "spectral

emissivity" and as disclosing a total radiation pyrometer with includes digitally displayed temperature readings "with a preset value for emissivity" on pages 177 and 178. In response the Applicant respectfully traverses the rejection for the reasons stated above and previously with regard to Hollander and based on the following remarks. Michalski et al. do not disclose a device in the Figures noted a fixed emissivity. The figures show an emissivity value, but it does not disclose that it is fixed.

The Examiner has rejected claims 6-8 under 35 U.S.C. §103(a) as being unpatentable over Hollander in view of Bartosiak. Specifically, the Examiner states that Hollander does not explicitly disclose that the sense axis is adjustable relative to the housing (claim 6), and mounted in a mount that is coupled to and movable relative to the housing (claim 7), and rotatably coupled to the housing (claim 8). However, the Examiner further states that Bartosiak discloses a remote pickup head 18, part of an infrared thermometer, rotatably coupled to a mount 28 (housing 18 of sensor head 20' see Figs. 2A, 2D; Col. 3, lines 28-35) by threaded cable connector 31, whereby the sense axis (of pickup head 12) is coupled to and movable relative to the housing 28.

The Examiner therefore concludes that it would have been obvious to substitute the remote pickup head with adjustable sense axis for Hollander's sense axis to provide for remote measurement of high measurement processes. The Applicant respectfully traverses these rejections for the reasons stated above with regard to Hollander and for the following additional reasons.

The Examiner states that the motivation to combine the references is in part that someone skilled in the art would have found it useful to fix the housing in one position while providing a movable sense axis to provide flexibility in aiming the sensor field of

view to include the desired portion of the target surface. However, even though someone might *have found* it useful, this analysis is impermissible hindsight. Neither Hollander nor Bartosiak are concerned with providing a remote sensor having a sense axis that is adjustable relative to the housing. Instead, Bartosiak teaches away from a sense axis that is adjustable relative to the housing by explicitly teaching that the center of fiber optic cable 18 should be in direct alignment with the focal axis 36 of the relay lens 50. (col. 3, lines 57-60) In addition, Bartosiak's remote pick-up head 18 is connected to the sensor head 20 and photosensor circuit by a 3 to 6 foot long fiber optic cable that is in turn connected back to the processing, analyzing indicator 24 through an electrical data cable. Bartosiak's remote pick-up 18 must also be independently fixed is a precise plane spaced from the relay lens 50, making Bartosiak's system, which is far from being built-in, unwieldy and contrary to the purpose of the Applicant's invention.

The Examiner has rejected claim 20-22 under 35 U.S.C. §103(a) as being unpatentable over Hollander in view of Anderson et al. The Examiner applied the same reasoning for rejecting claims 1, 3-5, 9, 14-16, 19 and 23 noting, however, that Hollander does not disclose the feature of a sense axis that is adjustable relative to the housing (claim 20) and mounted in a mount that is coupled to and movable relative to the housing (claim 21) and rotatably coupled to the housing (claim 22). However, the Examiner states that Anderson discloses IR detector 49 mounted in a bracket by a screw as shown in Figure 2 and that Anderson discloses or suggests that the sensing axis of the IR detector 49 is directed through the center of lens 19 by means of dichroic mirror 47 and parallel to the housing cover 13. The Examiner further states that Anderson is "evidence that ordinary workers in the field of infrared temperature sensors would recognize the

benefit of using a rotatably coupled adjustable mount for coupling an IR detector to the housing to align the sensing axis to be parallel to the housing cover to aim the device.

The Applicant respectfully traverses the rejection for all the reasons noted above with respect to Hollander and for the following reasons. Although Anderson discloses a radiometer that utilizes a beam splitting optical system to combine an image of the target with an image of an illuminated visual meter to permit the target to be scanned for temperature variations, Anderson does not disclose or suggest a sense axis that is adjustable relative to the housing; or a sensing device that is mounted in a mount that is coupled to and movable relative to the housing; or sensing device mount that is rotatably coupled to the housing. Instead, Anderson beam splitter is fixed securely in a place. It is not adjustable or rotatable. The modifications the Examiner proposes is not suggested in the cited prior art and is impermissible hindsight.

The Examiner has also rejected claims 10-12 and 24-26 under 35 U.S.C. §103(a) as being unpatentable over Hollander in view of Litvin et al. The Examiner applied the same reasoning for rejecting claims 1, 3-5, 9, 14-16, 19 and 23 noting, however, that Hollander does not disclose an aiming axis that is adjustable relative to the housing (claims 10 and 24); in which the optical aiming device is mounted in a mount that is coupled to and movable relative to the housing, to allow the user to aim the optical aiming device (claims 11 and 25); and in which the optical aiming device mount is rotatably coupled to the housing (claims 12 and 26). The Examiner further states that Litvin discloses an adjustable beam alignment system for a non-contact infrared temperature-measuring unit, including beam splitter assembly 20 having a beam splitter housing 21 that is rotatably coupled to and movable relative to the housing of the infrared

temperature-measuring unit, which functions to make the aiming axis adjustable relative to the housing by adjusting mirror element 40.

In response the Applicant's previous amendments to claims 10 and 24, the Examiner stated that Hollander's laser mounting is movable relative to the housing. Although the Examiner acknowledges that Hollander does not disclose that the optical aiming device is adjustable relative to the housing, the Examiner indicates that, nevertheless, because Hollander's device is movable, in view of Litvin's adjustable mirror element, that it would have obvious to combine Litvin's adjustable mirror device with Hollander's mount rotatably coupled to the housing to arrive at the Applicant's optical aiming device comprising a laser that is adjustable relative to the housing. The Applicant respectfully disagrees. The modifications that the Examiner proposes are not merely substitutions but rather changes in the structure and function of the components at issue of Hollander's and Litvin's devices. There is not any suggestion in the cited prior art to make such changes.

To establish that a patent claim is obvious and invalid under 35 U.S.C. §103, the challenger is required to show by clear and convincing evidence that the differences between the subject matter of the patents-in-suit and the purported prior art are such that the subject matter of the claimed invention, as a whole, would have been obvious to someone skilled in the art at the time of the invention. McGinley v. Franklin Sports, Inc., 60 U.S.P.Q.2d 1001, 1007 (Fed. Cir. 2001) and Ruiz v. A.B. Chance Co., 57 U.S.P.Q.2d 1161 (Fed. Cir. 2000), both citing, 35 U.S.C. §103(a). "Each fact forming the factual foundation upon which the court bases its ultimate conclusion regarding the obviousness of the claimed subject matter as a whole must be established by clear and convincing

evidence.” Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., et al., 227 U.S.P.Q. 657, 663 (Fed. Cir. 1985)(citations omitted).

Although obviousness is ultimately a question of law, it is predicated on four underlying issues of fact, namely, (1) the scope and content of the prior art, (2) the differences between the claims and the prior art, (3) the level of ordinary skill in the art, (4) and secondary considerations of nonobviousness including commercial success, long felt but unresolved need, failure of others, copying, and unexpected results. Ruiz v. A.B. Chance, supra, citing, Graham v. John Deer Co., 383 U.S. 1, 17-18, 148 U.S.P.Q. 459, 467 (1966) and Miles Labs., Inc. v. Shandon, Inc., 997 F.2d 870, 877, 27 U.S.P.Q.2d 1123, 1228 (Fed. Cir. 1993); and McGinley, supra, citing, Graham v. John Deere Co., 383 U.S. 1, 17-18 (1966) and Kegel Co., Inc. v. AMF Bowling, Inc., 127 F.3d 1420, 1430, 44 U.S.P.Q.2d 1123, 1130 (Fed. Cir. 1997). These are the so called Graham factors.

The test of obviousness is not whether an improvement, or part of a claimed invention, is obvious, but whether the claimed invention, when viewed as a whole, would have been obvious to someone skilled in the art. Carl Schenck A.G. v. Nortron Corp., 713 F.2d 782, 785 (Fed. Cir. 1983). Failure to consider the claimed invention as a whole is an error of law. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1548 (Fed. Cir. 1983). The question is not whether the individual elements existed in the prior art, but whether their combination would have been obvious. Id at 1543

The Graham test is especially important, and the danger of entering into the “forbidden zone of hindsight” increases, in cases in which “the very ease with which the invention can be understood may prompt one to fall victim to the insidious effect of a

hindsight syndrome.’’ Ruiz v. A.B. Chance, 57 U.S.P.Q.2d at 1166, quoting, In re Dembiczak, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999); Monarch Knitting Machinery Corp. v. sulzer Morat GmbH, 45 U.S.P.Q.2d 1977, 1981 (Fed. Cir. 1998)(court must not presume solution, defining the problem in terms of its solution reveals improper hindsight).

‘‘In determining the differences between the prior art and the claims, the question under 35 U.S.C. §103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious.’’ M.P.E.P. §2141.02, citing, *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 U.S.P.Q. 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 U.S.P.Q. 698 (Fed. Cir. 1983).

Secondary considerations of nonobviousness include commercial success, long felt but unresolved need, failure of others, copying, and unexpected results. Ruiz v. A.B. Chance, citing, Graham v. John Deer Co., 383 U.S. 1, 17-18, 148 U.S.P.Q. 459, 467 (1966) and Miles Labs., Inc. v. Shandon, Inc., 997 F.2d 870, 877, 27 U.S.P.Q.2d 1123, 1228 (Fed. Cir. 1993).

[E]vidence of secondary considerations may often be the most probative and cogent evidence in the record. It may often establish that an invention appearing to have been obvious in light of the prior art was not. It is to be considered as part of all the evidence, not just when the decisionmaker remains in doubt after reviewing the art. Ruiz v. A.B. Chance Co., 57 U.S.P.Q.2d 1161, 1169 (Fed. Cir. 2000), quoting, Stratoflex, 713 F.2d at 1538, 218 U.S.P.Q. at 879) Such evidence ‘may be sufficient to overcome a *prima facie* case of obviousness.’ Ruiz v. A.B. Chance Co., 57 U.S.P.Q.2d at 1169, quoting, In re Beattie, 974 F.2d 1309, 1313, 24 U.S.P.Q.2d 1040, 1043 (Fed. Cir. 1992).

As in Litton Systems Inc. v. Honeywell, Inc., 39 U.S.P.Q.2d 1321, 1327 (Fed. Cir. 1996), here there is substantial evidence of secondary considerations of nonobviousness including, that the primary references teach away from the invention.

The combinations that the Examiner has suggested between Hollander and the other references are impermissible hindsight and the suggestion to make all of the modifications is not found in the cited prior art. Further, the very fact that none of the cited references teach or suggest making the proposed modifications, particularly given the age of the references, indicates that the combinations are the result of hindsight.

Since no one in the subject industry has ever made or marketed the claimed combination, this is strong evidence that the combination is not obvious. Arkie Lures Inc. v. Gene Larew Tackle Inc., 43 U.S.P.Q.2d 1294, 1297 (Fed. Cir. 1997) (“the years of use of [the prior art], without combining their properties, weighs on the side of unobviousness of the combination.”). When the prior art in question has been widely available for many years to persons skilled in the art without any suggestion to modify or combine, such widely available prior art is itself evidence of nonobviousness. Ruiz v. A.B. Chance, 57 U.S.P.Q.2d at 1168, quoting, Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1577, 1 U.S.P.Q.2d 1593, 1605 (Fed. Cir. 1987) (“[T]hat the elements noted by the court lay about in the prior art available for years to all skilled workers, without, as the court found, suggesting anything like the claimed inventions, is itself evidence of nonobviousness.””).

Each of the Examiner's rejections has been addressed. Accordingly, it is respectfully submitted that the application is in condition for allowance. Early and favorable action is requested.

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned in Worcester, Massachusetts at (508) 791-8500.

Respectfully submitted,



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